

**FIRE CODE AMENDMENTS**

2015 GENERAL SESSION

STATE OF UTAH

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**LONG TITLE****General Description:**

This bill modifies provisions of the State Fire Code relating to carbon monoxide detection.

**Highlighted Provisions:**

This bill:

- modifies references to certain standards established by Underwriters Laboratories, Inc. that relate to carbon monoxide detection systems.

**Money Appropriated in this Bill:**

None

**Other Special Clauses:**

None

**Utah Code Sections Affected:**

AMENDS:

**15A-5-204**, as last amended by Laws of Utah 2014, Chapters 74 and 243

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*Be it enacted by the Legislature of the state of Utah:*

Section 1. Section **15A-5-204** is amended to read:

**15A-5-204. Amendments and additions to IFC related to fire protection systems.**

For IFC, Fire Protection Systems:

(1) IFC, Chapter 9, Section 901.2, Construction Documents, is amended to add the following at the end of the section: "The code official has the authority to request record drawings ("as built") to verify any modifications to the previously approved construction documents."

(2) IFC, Chapter 9, Section 901.4.6, Pump and Riser Room Size, is deleted and replaced with the following: "Pump and Riser Room Size. Fire pump and automatic sprinkler system riser rooms shall be designed with adequate space for all installed equipment necessary for the installation and to provide sufficient working space around the stationary equipment."

Clearances around equipment shall be in accordance with manufacturer requirements and not less than the following minimum elements:

901.4.6.1 A minimum clear and unobstructed distance of 12 inches shall be provided from the installed equipment to the elements of permanent construction.

901.4.6.2 A minimum clear and unobstructed distance of 12 inches shall be provided between all other installed equipment and appliances.

901.4.6.3 A clear and unobstructed width of 36 inches shall be provided in front of all installed equipment and appliances, to allow for inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly.

901.4.6.4 Automatic sprinkler system riser rooms shall be provided with a clear and unobstructed passageway to the riser room of not less than 36 inches, and openings into the room shall be clear and unobstructed, with doors swinging in the outward direction from the room and the opening providing a clear width of not less than 34 inches and a clear height of the door opening shall not be less than 80 inches.

901.4.6.5 Fire pump rooms shall be provided with a clear and unobstructed passageway to the fire pump room of not less than 72 inches, and openings into the room shall be clear, unobstructed and large enough to allow for the removal of the largest piece of equipment, with doors swinging in the outward direction from the room and the opening providing a clear width of not less than 68 inches and a clear height of the door opening shall not be less than 80 inches."

(3) IFC, Chapter 9, Section 903.2.1.2, Group A-2, is amended to add the following subsection: "4. An automatic fire sprinkler system shall be provided throughout Group A-2 occupancies where indoor pyrotechnics are used."

(4) IFC, Chapter 9, Section 903.2.2, Ambulatory Health Care Facilities, is amended as follows: On line two delete the words "all fire areas floor" and replace with the word "buildings" and delete the last paragraph.

(5) IFC, Chapter 9, Section 903.2.4, Group F-1, Subsection 2, is deleted and rewritten as follows: "A Group F-1 fire area is located more than three stories above the lowest level of fire department vehicle access."

(6) IFC, Chapter 9, Section 903.2.7, Group M, Subsection 2, is deleted and rewritten as

64 follows: "A Group M fire area is located more than three stories above the lowest level of fire  
65 department vehicle access."

66 (7) IFC, Chapter 9, Section 903.2.8 Group R, is amended to add the following:  
67 "Exception: Detached one- and two-family dwellings and multiple single-family dwellings  
68 (townhouses) constructed in accordance with the International Residential Code for one- and  
69 two-family dwellings."

70 (8) IFC, Chapter 9, Section 903.2.8, Group R, is amended to add a second exception as  
71 follows: "Exception: Group R-4 fire areas not more than 4,500 gross square feet and not  
72 containing more than 16 residents, provided the building is equipped throughout with an  
73 approved fire alarm system that is interconnected and receives its primary power from the  
74 building wiring and a commercial power system."

75 (9) IFC, Chapter 9, Section 903.2.8 Group R, is amended to add a third exception as  
76 follows: "Exception: Single story group R-1 occupancies with fire areas not more than 2,000  
77 square feet that contain no installed plumbing or heating, where no cooking occurs, and  
78 constructed of Type I-A, I-B, II-A, or II-B construction."

79 (10) IFC, Chapter 9, Section 903.2.9, Group S-1, Subsection 2, is deleted and rewritten  
80 as follows: "A Group S-1 fire area is located more than three stories above the lowest level of  
81 fire department vehicle access."

82 (11) IFC, Chapter 9, Section 903.3.1.1 is amended by adding the following subsection:  
83 "903.3.1.1.2 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler system  
84 installed in accordance with NFPA 13 may not exceed a maximum concentration of 38%  
85 premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may not  
86 exceed 150 gallons."

87 (12) IFC, Chapter 9, Section 903.3.1.2 is amended by adding the following subsection:  
88 "903.3.1.2.2 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler system  
89 installed in accordance with NFPA 13R may not exceed a maximum concentration of 38%  
90 premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may not  
91 exceed 150 gallons."

92 (13) IFC, Chapter 9, Section 903.3.1.3 is amended by adding the following subsection:  
93 "903.3.1.3.1 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler system  
94 installed in accordance with NFPA 13D may not exceed a maximum concentration of 38%

95 premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may not  
96 exceed 150 gallons."

97 (14) IFC, Chapter 9, Section 903.3.5, Water supplies, is amended as follows: On line  
98 six, after the word "Code", add "and as amended in Utah's State Construction Code".

99 (15) IFC, Chapter 9, Section 903.5 is amended to add the following subsection:  
100 "903.5.1 Tag and Information. A tag shall be attached to the riser indicating the date the  
101 antifreeze solution was tested. The tag shall also indicate the type and concentration of  
102 antifreeze solution by volume with which the system is filled, the name of the contractor that  
103 tested the antifreeze solution, the contractor's license number, and a warning to test the  
104 concentration of the antifreeze solutions at yearly intervals."

105 (16) IFC, Chapter 9, Section 904.11, Commercial cooking systems, is deleted and  
106 rewritten as follows: "The automatic fire extinguishing system for commercial cooking systems  
107 shall be of a type recognized for protection of commercial cooking equipment and exhaust  
108 systems. Pre-engineered automatic extinguishing systems shall be tested in accordance with  
109 UL300 and listed and labeled for the intended application. The system shall be installed in  
110 accordance with this code, its listing and the manufacturer's installation instructions. The  
111 exception in Section 904.11 is not deleted and shall remain as currently written in the IFC."

112 (17) IFC, Chapter 9, Section 904.11.3, Carbon dioxide systems, and Section  
113 904.11.3.1, Ventilation system, are deleted and rewritten as follows:

114 (a) "Existing automatic fire extinguishing systems used for commercial cooking that  
115 use dry chemical are prohibited and shall be removed from service."

116 (b) "Existing wet chemical fire extinguishing systems used for commercial cooking  
117 that are not UL300 listed and labeled are prohibited and shall be either removed or upgraded to  
118 a UL300 listed and labeled system."

119 (18) IFC, Chapter 9, Section 904.11.4, Special provisions for automatic sprinkler  
120 systems, is amended to add the following subsection: "904.11.4.2 Existing automatic fire  
121 sprinkler systems protecting commercial cooking equipment, hood, and exhaust systems that  
122 generate appreciable depth of cooking oils shall be replaced with a UL300 system that is listed  
123 and labeled for the intended application."

124 (19) IFC, Chapter 9, Section 904.11.6.2, Extinguishing system service, is amended to  
125 add the following: "Exception: Automatic fire extinguishing systems located in occupancies

where usage is limited and less than six consecutive months may be serviced annually if the annual service is conducted immediately before the period of usage, and approval is received from the AHJ."

(20) IFC, Chapter 9, Section 905.3.9 is a new subsection as follows: "Open Parking Garages. Open parking garages shall be equipped with an approved Class I manual standpipe system when fire department access is not provided for firefighting operations to within 150 feet of all portions of the open parking garage as measured from the approved fire department vehicle access. Class I manual standpipe shall be accessible throughout the parking garage such that all portions of the parking structure are protected within 150 feet of a hose connection.

Exception: Open parking garages equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1."

(21) IFC, Chapter 9, Section 905.8, Dry Standpipes, Exception is deleted and rewritten as follows: "Where subject to freezing conditions and approved by the fire code official."

(22) IFC, Chapter 9, Section 905.11, Existing buildings, and IFC, Chapter 11, Section 1103.6, Standpipes, are deleted.

(23) In IFC, Chapter 9, Section 906.1, Where Required, the exception under paragraph 1 is deleted and rewritten to read: "Exception: In new and existing Group A, B, and E occupancies equipped with quick response sprinklers, portable fire extinguishers shall be required only in locations specified in items 2 through 6.

(24) IFC, Chapter 9, Section 907.2.3 Group E:

(a) The first sentence is deleted and rewritten as follows: "A manual fire alarm system that initiates the occupant notification system in accordance with Section 907.5 and installed in accordance with Section 907.6 shall be installed in Group E occupancies."

(b) Exception number 3, on line five, delete the words, "emergency voice/alarm communication system" and replace with "occupant notification system."

(25) IFC, Chapter 9, 907.8, Inspection, testing, and maintenance, is amended to add the following sentences at the end of the section: "Increases in nuisance alarms shall require the fire alarm system to be tested for sensitivity. Fire alarm systems that continue after sensitivity testing with unwarranted nuisance alarms shall be replaced as directed by the AHJ."

(26) IFC, Chapter 9, Section 908.7, Carbon Monoxide Alarms, is deleted and rewritten

as follows:

"908.7 Carbon Monoxide Detection.

908.7.1 Groups R-1, R-2, R-3, R-4, I-1, and I-4. Carbon monoxide detection shall be installed on each habitable level of a dwelling unit or a sleeping unit in Groups R-1, R-2, R-3, R-4, I-1, and I-4 occupancies that are equipped with a fuel-burning appliance.

908.7.1.1 If more than one carbon monoxide detector is required, the carbon monoxide detectors shall be interconnected as required in IFC, Chapter 9, Section 907.2.11.3.

908.7.1.2 In new construction, a carbon monoxide detector shall receive its primary power as required under IFC, Chapter 9, Section 907.2.11.4.

908.7.1.3 Upon completion of the installation, a carbon monoxide detector system shall meet the requirements listed in NFPA 720, Installation of Carbon Monoxide Detection and Warning Equipment and ~~[UL 2034, Standard for Single and Multiple Carbon Monoxide Alarms]~~ UL 2075, Standard for Gas and Vapor Detectors and Sensors.

908.7.2 Group E. A carbon monoxide detection system shall be installed in new buildings that contain Group E occupancies in accordance with IFC, Chapter 9, Sections 908.7.2.1 through 908.7.2.6. A carbon monoxide detection system shall be installed in existing buildings that contain Group E occupancies in accordance with IFC, Chapter 11, Section 1103.9.

908.7.2.1 Where required. In Group E occupancies, a carbon monoxide detection system shall be provided where a fuel-burning appliance, a fuel-burning fireplace, or a fuel-burning forced air furnace is present.

908.7.2.2 Detection equipment. Each carbon monoxide detection system shall be installed in accordance with NFPA 720 and the manufacturer's instructions, and be listed as complying with ~~[UL 2034 and]~~ UL 2075.

908.7.2.3 Locations. Each carbon monoxide detection system shall be installed in the locations specified in NFPA 720.

908.7.2.4 Combination detectors. A combination carbon monoxide/smoke detector is an acceptable alternative to a carbon monoxide detection system if the combination carbon monoxide/smoke detector is listed in accordance with UL 2075 and UL 268.

908.7.2.5 Power source. Each carbon monoxide detection system shall receive primary power from the building wiring if the wiring is served from a commercial source. If primary

188 power is interrupted, each carbon monoxide detection system shall receive power from a  
189 battery. Wiring shall be permanent and without a disconnecting switch other than that required  
190 for over-current protection.

191 908.7.2.6 Maintenance. Each carbon monoxide detection system shall be maintained  
192 in accordance with NFPA 720. A carbon monoxide detection system that becomes inoperable  
193 or begins to produce end-of-life signals shall be replaced."

194 (27) IFC Section 908.7.1 is renumbered to 908.7.3.